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February 28, 2002


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of D. Goring, N. Silva, Y. Haffani  
U.S. Application No. Unassigned  
Filed Concurrently Herewith  
Proline-rich Extensin-like Receptor Kinases

(Atty. Docket No. P 25,762-A USA)

CERTIFICATE OF EXPRESS MAILING

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Chris Ricco

Commissioner for Patents  
Box Patent Application  
Washington, D.C. 20231

PRELIMINARY AMENDMENT UNDER 37 CFR § 1.115

Sir:

Applicants request entry of the following amendments.

In the Description

Please amend the paragraph commencing after "Cross Reference to Related Application" as follows.

--This application is a continuation-in-part of a US patent application (number not yet assigned) filed on February 19, 2002, as Express Mail Label No. EL 930922731US, which is a national phase application based on PCT/CA00/00966, filed on August 18, 2000, which claims priority from US patent application no. 60/149,466, filed on August 19, 1999, and US patent application no. 60/159,122, filed on October 13, 1999, and all of the foregoing are incorporated herein by reference in their entirety.--

In the Claims

Please amend the following claims.

1. (Amended) A method for producing a transgenic plant having increased plant height, number of branches, number of seed pods and/or seed production compared to a non-transgenic plant, and/or quicker flowering or later senescence compared to a non-transgenic plant, comprising transforming a plant with a vector including an isolated nucleic acid molecule encoding a PERK polypeptide or a polypeptide having PERK activity.
2. (Amended) A method for producing a genetically transformed plant including an isolated nucleic acid molecule encoding a PERK polypeptide or a polypeptide having PERK activity, the plant having increased plant height, number of branches, number of seed pods and/or seed production, compared to wild-type plants, and/or quicker flowering or later senescence compared to a non-transgenic plant, comprising:

- (a) cloning or synthesizing a nucleic acid molecule encoding a PERK polypeptide or a polypeptide having PERK activity;
  - (b) inserting the nucleic acid molecule in a vector so that the nucleic acid molecule is operably linked to a promoter;
  - (c) inserting the vector into a plant cell or plant seed;
  - (d) regenerating the plant from the plant cell or plant seed, wherein plant height, number of branches, number of seed pods and/or seed production compared to wild-type plants in the plant are increased or wherein the plant has quicker flowering or later senescence.
3. (Amended) The method of claim 1, wherein the nucleic acid molecule encoding a PERK polypeptide or polypeptide having PERK activity comprises a nucleic acid molecule selected from the group consisting of:
- (a) a nucleic acid molecule that hybridizes to a nucleic acid molecule consisting of all or part of [SEQ ID NO:1], or a complement thereof under low, moderate or high stringency hybridization conditions;
  - (b) a nucleic acid molecule degenerate with respect to (a), wherein the nucleic molecule encodes a PERK polypeptide or a polypeptide having PERK activity.
4. (Amended) The method of claim 1, wherein the nucleic acid molecule encoding a PERK polypeptide, or a polypeptide having PERK activity, comprises a nucleic acid molecule selected from the group consisting of:

- (a) the nucleic acid molecule of the coding strand shown in [SEQ ID NO:1], or a complement thereof;
- (b) a nucleic acid molecule encoding the same amino acid sequence as a nucleotide sequence of (a); and
- (c) a nucleic acid molecule having at least 17% identity with the nucleotide sequence of (a) and which encodes a PERK polypeptide or a polypeptide having PERK activity.

5. (Amended) The method of claim 1, wherein the plant is of a species selected from the group consisting of alfalfa, almond, apple, apricot, arabidopsis, artichoke, atriplex, avocado, barley, beet, birch, brassica, cabbage, cacao, cantalope, carnations, castorbean, cauliflower, celery, clover, coffee, corn, cotton, cucumber, garlic, grape, grapefruit, hemp, hops, lettuce, maple, melon, mustard, oak, oat, olive, onion, orange, pea, peach, pear, pepper, pine, plum, poplar, potato, prune, radish, rape, rice, roses, rye, salicornia sorghum, soybean, spinach, squash, strawberries, sunflower, sweet corn, tobacco, tomato and wheat.

Please add the following claims.

6. (New) The method of claim 2, wherein the nucleic acid molecule encoding a PERK polypeptide or polypeptide having PERK activity comprises a nucleic acid molecule selected from the group consisting of:

- (a) a nucleic acid molecule that hybridizes to a nucleic acid molecule consisting of all or part of [SEQ ID NO:1], or a complement thereof under low, moderate or high stringency hybridization conditions;
- (b) a nucleic acid molecule degenerate with respect to (a), wherein the nucleic molecule encodes a PERK polypeptide or a polypeptide having PERK activity.

7. (New) The method of claim 2, wherein the nucleic acid molecule encoding a PERK polypeptide, or a polypeptide having PERK activity, comprises a nucleic acid molecule selected from the group consisting of:
- (a) the nucleic acid molecule of the coding strand shown in [SEQ ID NO:1], or a complement thereof;
  - (b) a nucleic acid molecule encoding the same amino acid sequence as a nucleotide sequence of (a); and
  - (c) a nucleic acid molecule having at least 17% identity with the nucleotide sequence of (a) and which encodes a PERK polypeptide or a polypeptide having PERK activity.
8. (New) The method of claim 2, wherein the plant is of a species selected from the group consisting of alfalfa, almond, apple, apricot, arabidopsis, artichoke, atriplex, avocado, barley, beet, birch, brassica, cabbage, cacao, cantalope, carnations, castorbean, cauliflower, celery, clover, coffee, corn, cotton, cucumber, garlic, grape, grapefruit, hemp, hops, lettuce, maple, melon, mustard, oak, oat, olive, onion, orange, pea, peach, pear, pepper,

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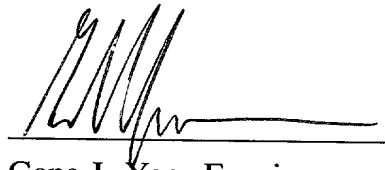
pine, plum, poplar, potato, prune, radish, rape, rice, roses, rye, salicornia  
sorghum, soybean, spinach, squash, strawberries, sunflower, sweet corn,  
tobacco, tomato and wheat.

REMARKS

Amendments have been made to Claims 3 to 5 to convert the claims from multiple-dependent form. Amendments of an editorial nature were made to Claims 1 to 3. Claims 6 to 8 have been added to encompass matter excised from Claims 3 to 5. Claims presently pending are Claims 1 to 8.

A marked-up version of the claims amended, showing the changes made, is attached.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Gene J. Yao', is written over a horizontal line.

Gene J. Yao, Esquire

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VERSION WITH MARKINGS TO SHOW CHANGES MADEIn the Description

The paragraph, commencing after "Cross Reference to Related Application", has been amended as follows.

--This application is a continuation-in-part of a US patent application (number not yet assigned) filed on February 19, 2002, as Express Mail Label No. EL 930922731US, which is a national phase application based on PCT/CA00/00966, filed on August 18, 2000, which claims priority from US patent application no. 60/149,466, filed on August 19, 1999, and US patent application no. 60/159,122, filed on October 13, 1999, and all of the foregoing are incorporated herein by reference in their entirety.--

In the Claims

1. (Amended) A method for producing a transgenic plant having increased plant height, number of branches, number of seed pods and/or seed production compared to a non-transgenic plant, and/or quicker flowering or later senescence compared to a non-transgenic plant, comprising transforming a plant with a vector including [a PERK nucleic acid molecule or a] an isolated nucleic acid molecule encoding a PERK polypeptide or a polypeptide having PERK activity.
2. (Amended) A method for producing a genetically transformed plant including an isolated nucleic acid molecule encoding [which expresses] a PERK

polypeptide or a polypeptide having PERK activity, the plant having increased plant height, number of branches, number of seed pods and/or seed production, compared to wild-type plants, and/or quicker flowering or later senescence compared to a non-transgenic plant, comprising:

- (a) cloning or synthesizing a [PERK] nucleic acid molecule encoding a PERK polypeptide or a polypeptide [or nucleic acid molecule] having PERK activity;
- (b) inserting the nucleic acid molecule in a vector so that the nucleic acid molecule is operably linked to a promoter;
- (c) inserting the vector into a plant cell or plant seed;
- (d) regenerating the plant from the plant cell or plant seed, wherein plant height, number of branches, number of seed pods and/or seed production compared to wild-type plants in the plant are increased or wherein the plant has quicker flowering or later senescence.

3. (Amended) The method of claim 1 [or 2], wherein the [isolated] nucleic acid molecule encoding a PERK polypeptide or polypeptide having PERK activity comprises a nucleic acid molecule selected from the group consisting of:

- (a)[c] a nucleic acid molecule that hybridizes to a nucleic acid molecule consisting of all or part of [SEQ ID NO:1], or a complement thereof under low, moderate or high stringency hybridization conditions;
- (b)[d] a nucleic acid molecule degenerate with respect to (a), wherein the nucleic molecule encodes a PERK polypeptide or a



polypeptide having PERK activity.

4. (Amended) The method of claim 1 [or 2], wherein the nucleic acid molecule encoding a PERK polypeptide, or a polypeptide having PERK activity, comprises a nucleic acid molecule selected from the group consisting of:
- (a) the nucleic acid molecule of the coding strand shown in [SEQ ID NO:1], or a complement thereof;
  - (b) a nucleic acid molecule encoding the same amino acid sequence as a nucleotide sequence of (a); and
  - (c) a nucleic acid molecule having at least 17% identity with the nucleotide sequence of (a) and which encodes a PERK polypeptide or a [poypeptide] polypeptide having PERK activity.
5. (Amended) The method of claim 1 [or 2], wherein the plant is of a species selected from the group consisting of alfalfa, almond, apple, apricot, arabidopsis, artichoke, atriplex, avocado, barley, beet, birch, brassica, cabbage, cacao, cantalope, carnations, castorbean, cauliflower, celery, clover, coffee, corn, cotton, cucumber, garlic, grape, grapefruit, hemp, hops, lettuce, maple, melon, mustard, oak, oat, olive, onion, orange, pea, peach, pear, pepper, pine, plum, poplar, potato, prune, radish, rape, rice, roses, rye, salicornia sorghum, soybean, spinach, squash, strawberries, sunflower, sweet corn, tobacco, tomato and wheat.